DESCRIPTIONS AND CHANGES OF NAME.

By E. P. Phillips.

In the course of preparing a second edition of my "Genera of South African Flowering Plants" (Botanical Survey of South Africa, Memoir No. 10, 1926), I have found it advisable to make various changes in nomenclature, as regards both genera and species. Certain new species have come to light. In the following pages some of these changes, descriptions and revisions are published.

When drawing up generic descriptions of the *Compositae*, I was confronted with a group of small Cape annuals, members of which had been placed in more than one genus by different authors. The problem was whether to place them in separate genera on characters which are not constant or to group them in one polymorphic genus. The genera involved are *Gamolepis* Less., *Steirodiscus* Less., and *Psilothonna* E. Mey. The "Flora Capensis" (vol. 3, p. 129) separated *Gamolepis* and *Steirodiscus* on the following characters:—

Gamolepis: Disc fertile; all the achenes glabrous.

Steirodiscus: Disc sterile; ray-achenes silky, fertile.

E. Meyer first gave the name *Psilothonna tagetes* in MS for a Cape plant collected by Drège. The species had previously been named *Othonna tagetes* by Linnaeus (Syst. ed. 10, 1234 (1758).) Lessing (Synops. Compos., p. 251 (1832)) placed it in the genus he described as *Gamolepis* and named it *Gamolepis annua*. Later, De Candolle (Prodr. vol. 6, p. 40 (1837)) retained the plant in *Gamolepis* and drew attention to it as the only annual in the genus; he placed it in a separate section for which he adopted E. Meyer's generic name *Psilothonna*. He was followed by Harvey (Fl. Cap., vol. 3, p. 156 (1864/65)) who also placed it in *Gamolepis* as the only annual.

This plant has an involucre in the form of a many-toothed cup and in this respect differs from *Gamolepis* in which the involucre-bracts are connate at the base only.

In *Steirodiscus* Less. (as defined in the "Flora Capensis") the four outstanding characters are (1) involucre of many scales in one row; (2) ovary of disc-floret glabrous; (3) branches of disc-style tipped with a cone and (4) the disc-florets are sterile. Specimens (Bolus 8495 and Schlechter 8721) agree with those characters. In other specimens (e.g. Bolus 8605, Schlechter 8974 named *Steirodiscus capillaceus* Less.) with the same habit, the appendage to the style-branches is present but the involucre is a toothed cup and the ovary villous; Schlechter 8358 (the type of

Steirodiscus schlechteri Bolus) agrees in three of the above characters but the disc-florets are fertile, while Galpin 11500 (named by Schlechter *Steirodiscus tagetes*) only agrees with the description of *Steirodiscus* in having glabrous ovaries.

It is not advisable to uphold genera on habit alone and there may be some justification for including the annuals concerned as a section in the genus *Gamolepis* as was done by De Candolle and Harvey with *Gamolepis tagetes.* From the records available, the woody plants I have retained in *Gamolepis* have a distribution from Bredasdorp to Natal and the Northern Transvaal, while the annuals are confined to the Cape and adjoining districts and for the sake of convenience are better kept together in a separate genus, and E. Meyer's name *Psilothonna* is accepted on grounds of priority.

PSILOTHONNA E. Mey., ex DC., Prodr., vol. 6, p. 40 (1837). (*Steirodiscus* Less.)

Heads many- or few-flowered, heterogamous, with marginal female florets and bisexual fertile or sterile disc-florets. *Receptacle* conical or convex, nude. *Involucre* ovoid or sub-globose or campanulate; bracts fused to form a many-toothed cup or bracts free to the base, lanceolate or linear-lanceolate, sometimes sub-acuminate, with membranous margins, glabrous. *Marginal-floret: Corolla-tube* from $1\frac{1}{2}$ to 4 times shorter than the limb, with a few scattered glandular hairs or glandular at the junction of the limb and the tube; limb obovate-oblong, broadly linear, or oblong, obtuse or 3-toothed. *Ovary* linear or oblong in outline, sometimes minutely sculptured,. villous or glabrous; style linear or terete, sometimes swollen at the base; style-branches linear, obtuse. *Pappus* none. *Disc-floret: Corolla-tube* cylindric or tubular, campanulate or widening above, glabrous; lobes 5, lanceolate or ovate. *Anthers* linear or oblong, obtuse, with a linear or lanceolate appendage. *Ovary* oblong or linear in outline, sometimes finely sculptured, glabrous or villous; style linear or terete; style-branches truncate and penicillate or with a distinct appendage. *Pappus* none.

Glabrous annual herbs 6—12 inches high; leaves alternate, linear, pinnatisect with the lobes linear; heads solitary, peduncled, arranged in a lax corymb or panicle, rarely with only one terminal head on each plant.

Endemic; species 5. (Type: *P. tagetes* (L.) E. Mey.)

1.	Involucre-bracts fused to form a toothed cup	2
	Involucre-bracts free to base or connate at base only	4
2.	Ovary villous	1 *gamolepis*
	Ovary glabrous	3

3.	Glands at the junction of the corolla-tube and limb of the ray-floret	2	*tagetes*
	Glands absent from corolla of ray-floret	3	*speciosa*
4.	Ovary villous	4	*capillacea*
	Ovary glabrous	5	*schlechteri*

1. **P. gamolepis** (Bolus) Phill. = *Steirodiscus gamolepis* Bolus, Tulbagh Kloof, Sept., *Bolus* 8605 (type); Ceres Road, Sept., *Schlechter* 8974.
2. **P. tagetes** (Linn.) E. Mey. = *Othonna tagetes* Linn. = *Steirodiscus tagetes* Schltr. Malmesbury, Sept., *Galpin* 11500; Somerset Strand, Oct., *Nel* 1282; near Darling, Sept., *Bolus* 12734; near Cape Town, Sept., *Bolus* 7242; near Piquetberg, Oct., *Bolus* 13575.
3. **P. speciosa** (Pillans) Phill. = *Gamolepis speciosa* Pillans. Malmesbury district, *L. Bolus* (without number).
4. **P. capillacea** (Less.) Phill. = *Steirodiscus capillaceus* Less. Near Piquetberg, Oct., *Bolus* 8495; Koude Berg, Aug., *Schlechter* 8721.
5. **P. schlechteri** (Bolus) Phill. = *Steirodiscus schlechteri* Bolus, Windhoek, near van Rhynsdorp, July, *Schlechter* 8358 (type).

SUSANNA Phillips, gen. nov.

Capitula circa 14—20-flora, heterogama, radiata, floribus radii ♀ discique ☿ fertilibus vel pauce sterilibus. *Bractae* involucri 2—3-seriatae, lineares, apice acutae, pilosae. *Receptaculum* nudum. *Flores* ♀: *Tubus corollae* tubulosus, glaber vel sparse glandulosus; limbus ligulatus, 3-dentatus. *Ovarium* ovatum, pilosum; styli rami complanati, obtusi. *Pappi setae* barbellatae vel sub-plumosae, caducae, tubus colollae breviores vel longiores, cum 1—3 paleis parvis vel annulatis. *Flores* ☿: *Tubus corollae* basi tubulosus, sub apice sub-campanulatus; lobi 4—5, parvi, ovati. *Antherae* oblongae vel lineares, basi obtusae. *Ovarium* ovatum, pilosum; styli rami complanati, appendicibus lanceolatis. *Pappi* setae barbellatea vel sub-plumosae, caducae, tubus corollae aequales vel longiores, cum 1—3 paleis.

Herbae annuae, pilosae vel setosae; folia alterna vel opposita, linearia vel spathulata, pilosa vel setosa; capitula solitaria vel 2—4, ad apicem ramorum conferta, sub-sessilia vel pedunculata.

Endemic; species 3, ranging from the Riversdale district and parts of the Karoo to South West Africa. (Type: *S. microglossa* (DC.) Phill.)

In 1886, N. E. Brown named a Bolus specimen (No. 6538) *Amellus microglossus* DC. but added the following note "but this plant can scarcely belong to the genus *Amellus* and ill agrees with any other Cape genus; it will perhaps form a new genus". While I have not seen the Drège specimen, the type of *Amellus microglossa* DC., it may be assumed that Brown compared the Bolus specimen with the type which led him to name it *A. microglossa* DC. but with the reservation made in his note. De Candolle (Prodr., vol. 5, p. 215) in the description of *A. microglossa* mentions very narrow paleae subtending the outer disc-florets but almost absent in the centre of the disc. As the genus *Amellus* has evident paleae on the receptacle, there appears to be sufficient justification for placing those plants with a nude receptacle into a district genus. The genus I have named after my wife.

1. Outer involucral-bracts, sub-foliaceous .. .. 1 *epaleaceus*
   Outer involucral-bracts not foliaceous 2
2. Capitula on peduncles longer than the head: ovary with an annulus at the apex .. .. 2 *dinteri*
   Capitula on peduncles shorter than the head or sub-sessile; ovary, at least of disc-florets, with 1—3 paleae at the apex .. .. 3 *microglossa*

1. **S. epaleaceus** (O. Hoffm.) Phill.

Involucre campanulate; bracts in 3 rows; outermost bracts sub-foliaceous; inner bracts linear, with membranous margins; all more or less scabrid. *Receptacle* flat, nude. *Heads* several- to many-flowered. *Marginal-floret: Corolla-tube* tubular to cylindric, shorter than the limb, usually with a few scattered glandular hairs; limb broadly oblong to oblong-elliptic, 3-toothed. *Ovary* obovate or elliptic, pilose; style linear; style-branches linear, obtuse or sub-obtuse. *Pappus* of a few caducous barbellate bristles longer than the corolla-tube and a crown of short paleae. *Disc-floret: Corolla-tube* tubular below, widening or sub-campanulate above, usually with a few glandular hairs; lobes 5, small, ovate. *Anthers* linear, obtuse, with a lanceolate appendage. *Ovary* obovate-oblong or oblong-linear, pilose; style linear; style-branches linear, with a lanceolate glandular appendage. *Pappus* of a few caducous barbellate bristles as long as or almost as long as the corolla and a crown of short paleae.

Plants procumbent; branches pubescent or sub-glabrous; leaves alternate, linear or linear-spathulate, scabrid; heads solitary, mostly sessile or subsessile.

Distribution: Gordonia district, north of river at Kakamas, Sept., *Middlemost* (without number); South West Africa, Garius, Oct., *Dinter* 5023. (Type *Amellus epalaceus* O. Hoffm. based on a specimen collected by Steingröver.)

2. **S. dinteri** Phill. sp. nov. *Bracteae* involucri 2—3-seriatae, margine membranaceae, ciliatae, pilosae. *Flores* ♀: *Limbus* corollae linearis vel lineare-oblongus. *Pappi* setae tubus corollae aequales. *Ovarium*

apice annulatum. Flores ☿: *Pappi* setae corolla aequalis. *Ovarium* apice annulatum.

Herba procumbens; folia linearia, pilosa; capitula pedunculata.

Involucre campanulate; bracts in 2—3 rows, linear, with membranous margins, ciliate, pilose on the back. *Receptacle* flat, nude. *Heads* many-flowered. *Marginal-floret: Corolla-tube* cylindric to tubular, shorter than the limb, glabrous or with a few scattered glandular hairs; limb linear or linear-oblong, 3-toothed. *Ovary* obovoid or elliptic in outline, glandular-pilose; style linear; style-branches linear, obtuse. *Pappus* of scabrid caducous bristles, longer than or as long as the corolla-tube, and an annulus on top of the ovary. *Disc-floret: Corolla-tube* tubular, widening above, with a few scattered glandular hairs; lobes 5, ovate or lanceolate. *Anthers* linear, obtuse, with a lanceolate appendage. *Ovary* elliptic or oblong, glandular-pilose; style linear; style-branches linear, with a lanceolate glandular appendage. *Pappus* of caducous scabrid bristles as long as the corolla and an annulus on top of the ovary.

Procumbent herbs; branches pilose; leaves alternate, linear, pilose; heads solitary, peduncled, with the peduncles much longer than the heads.

Distribution: South West Africa, Small Kares, Aug., *Dinter* 4880 (type); Halenberg, *Dinter* 6624; Klingh, *Dinter* 3860.

3. **S. microglossa** (DC.) Phill.

Involucre campanulate; bracts in 2—3 rows, linear, acute, pilose. *Receptacle* nude. *Heads* several-flowered, with sometimes some of the disc-florets sterile. *Marginal-floret: Corolla-tube* tubular, about as long as the limb, sometimes sparsely glandular; limb oblong to oblong-linear, 3-toothed. *Ovary* obovate, villous; style linear; style-branches linear, obtuse. *Pappus* of a few caducous barbellate bristles shorter than the corolla-tube and 1—2 paleae. *Disc-floret: Corolla-tube* tubular below, sub-campanulate above; lobes 5, ovate. *Anther* oblong, blunt, with a lanceolate appendage. *Ovary* obovate, villous; style linear; style-branches linear, with a lanceolate appendage. *Pappus* of a few caducous barbellate bristles as long as the corolla-tube and 1—3 paleae, very rarely some florets without paleae.

Procumbent herbs; stems pilose or glabrescent; leaves alternate, rarely opposite, linear to linear-spathulate, pilose or glabrescent; heads solitary or more rarely 2—3, sessile or sub-peduncled, but then peduncles very rarely much longer than the heads.

Distribution: Riversdale district, Springfontein in Small Karoo, Aug., *Muir* 3649;* Ceres district, Spes Bona, *Marloth* 10360;*

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* The Muir and Marloth specimens are merely dwarf forms.

Laingsburg district, Baviaans River, Whitehill, Aug., *Compton* 3248; 11226; Van Rhynsdorp district, Knechts Vlakte, Aug., *Compton* 11333, south of Van Rhynsdorp, *Barker* 5721; Namaqualand, Paddegat, *Bolus* 6538. (Drège's specimen, which I have not seen, should by the type of the species.)

My thanks are due to the Director of the National Botanic Gardens, Kirstenbosch, and the Curator of the Bolus Herbarium for the loan of specimens.

Eumorphia corymbosa Phillips sp. nov.

Capitula heterogama, radiata, floribus radii ♀ discique ☿ fertilibus. *Involucrum* ellipsoideum, bracteis 5-seriatis; bracteae ovatae vel lanceolatae, ciliatae, glabrae. *Receptaculum* paleolatum; paleae lineare-lanceolatae. *Corollae* radii ligulatae; lamina elliptica, 3-dentata. *Ovarium* costatum, glabrum; stylus divisus; rami apice obtusi. *Pappus* 0. *Corollae* disci tubulosae, glandulosae; lobi 5, ovati. *Antherae* lineares, basi minute caudatae. *Ovarium* plus minus ellipsoideum, costatum; stylus divisus; rami apice truncati. *Pappus* 0.

Frutex; folia opposita, linearia, integerrima, glabra; capitula parva, apices ramorum corymbosa.

Distribution: Beaufort West district, top of Molteno Pass, 5,500 ft., May, *Acocks* 14340.

Heads few-flowered, heterogamous, with 2—3 female marginal florets and bisexual fertile disc florets. *Involucre* ellipsoid; bracts in 5 rows, ovate to lanceolate, ciliate, glabrous. *Receptacle* flat, paleate; paleae almost as long as the disc-florets, linear-lanceolate. *Marginal-florets: Corolla-tube* shorter than the limb, tubular, sparsely glandular; limb elliptic, 3-toothed. *Ovary* ellipsoid, ribbed, glabrous; style terete; style-branches linear, obtuse. *Pappus* none. *Disc-floret: Corolla-tube* tubular, widening upwards, glandular; lobes 5, ovate. *Anthers* linear, minutely tailed, with a lanceolate appendage. *Ovary* more or less ellipsoid, ribbed, glabrous; style terete; style-branches linear, truncate. *Pappus* none.

A glabrous woody shrub; leaves opposite, narrow-linear; heads small, corymbose at the ends of the branches.

The leaves resemble those of *E. davyi* Bolus. It differs from other species of the genus in the corymbose arrangement of the heads.

Asaemia inermis Phillips sp. nov.

Capitula pauciflora, homogama, discoidea, floribus onmibus ☿ fertilibus. *Involucrum* ovoideum; bracteae 5-seriatae, siccae, ovatae, oblongae vel lineares. *Receptaculum* planum, nudum. *Tubus* corollae, tubulosus; lobi 5, lanceolati. *Antherae* lineares, basi obtusae. *Ovarium*

oblongum, 3-angulatum, glabrum; stylus teres; rami apice truncati, penicillati. *Pappus* 0.

Frutex inermis; folia opposita, basi connata, linearia, glabra; capitula sessilia, solitaria, terminalia.

Distribution: Laingsburg district, Matjesfontein, Oct., *Cannon in Herb. Marloth* 10854 (Type); *Foley in National Herb.* 1658; Ceres district, Spes Bona, Sept., *Marloth* 10371; van Rhynsdorp districts, Oct., *Duckitt in National Herb.* 28425.

The species differs from *A. axillare* (Thunb.) Harv. in being spineless.

Matricaria andreae Phillips sp. nov.

Involucrum campanulatum; bracteae 4-seriatae, oblongo-lanceolatae, margine membranaceae, ciliatae, pilosae. *Receptaculum* subglobosum, nudum. *Capitula* multiflora, heterogama, radiata, floribus radii ♀ discique ☿ fertilibus nunc pluribus sterilibus. *Receptaculum* subglobosum, nudum. *Flores radii: Tubus corollae* 0; limbus obovato-oblongus, apice obtusus. *Ovarium* oblongum, margine membranaceum, glabrum; styli rami complanati, obtusi. *Pappus* 0. *Flores disci: Tubus corollae* tubulosus; lobi 4, ovati. *Antherae* lineares, basi obtusae. *Ovarium* oblongum, margine membranaceum, glabrum; stylus basi globosus; rami complanati, truncati. *Pappus* 0.

Herbae nanae; folia radicalia, petiolata, pinnatisecta, pilosa; capitula pedunculata; radii albi.

Distribution: Prince Albert district, Seven Weeks Poort c. 6300 ft., Dec., *Andreae* 1226 (Type); *Stokoe* 1908. Worcester district, summit Buffelshoek Peak, Dec., *Esterhuysen* 14848.

The above specimens were found growing on wet rock faces.

Macowania conferta (Benth.) Phillips nov. comb. = *Homochaete conferta* Benth. Natal, Cathedral Peak, 7,000—8,000 ft., *Esterhuysen* 10216; Drakensberg, July, Marriott in National Herb. 22503. I find it impossible to keep the two genera *Macowania* and *Homochaete* apart, and in my MSS. have only recognised the first genus.

Cotula pedunculata (Schltr.) Phillips nov. comb. = *Otochlamys pedunculata* Schltr.

In the course of work on the genera of the *Scrophulariaceae*, I found difficulty in satisfactorily separating the genera *Aptosimum* Burch. and *Peliostomum* E. Mey. Bentham in the "Botanical Register" under tab. 1882, in proposing the genus *Peliostomum,* relied mainly on the shape of the capsule which he describes as obcordate in *Aptosimum* and acute in *Peliostomum*; the corolla, stamens, and pistil in *Peliostomum* he describes

as similar to those of *Aptosimum.* Both the "Flora Capensis" and the "Flora of Tropical Africa" follow Bentham in relying on the shape of the capsule for separating the two genera and both introduce another character viz. that in *Aptosimum* the anthers of the posterior pair of stamens are *often* empty, while in *Peliostomum* they are perfect. In some other genera of the *Scrophulariaceae* which occur in South Africa e.g. *Anticharis, Diascia* and *Manulea,* the stamens are not always equal and perfect. That some species of *Aptosimum* may have only two perfect stamens cannot be accepted as a good diagnostic character for separating the two genera.

The species of *Aptosimum* and *Peliostomum* in general habit differ no more than the habit of species in other genera of the family. An examination of the floral characters of the species in the National Herbarium failed to reveal any tangible character which could be used to separate the two genera. I therefore propose to sink *Peliostomum* E. Mey. under *Aptosimum* Burch. which is the older generic name. The following name changes are then necessary:—

Aptosimum virgatum (E. Mey.) Phill. = *P. virgatum* E. Mey.
A. oppositifolium (Engl.) Phill. = *P. oppositifolium* Engl.
A. viscosum (E. Mey.) Phill. = *P. viscosum* E. Mey.
A. origanoides (E. Mey.) Phill. = *P. origanoides* E. Mey.
A. leucorrhizum (E. Mey.) Phill. = *P. leucorrhizum* E. Mey.
A. lugardae (N. E. Br.) Phill. = *P. lugardae* N. E. Br.

Alectra pusilla Phillips sp. nov.

Calyx 7 mm. longus, 5-lobatus; tubus 3 mm. longus, campanulatus; lobi 4 mm. longi, lanceolato-lineares. *Tubus corollae* 7 mm. longus, subcampanulatus; lobi ovati. *Stamina* 4, inclusa; filamenta circa basi tubae corollae inserta, curvata, glabra vel sparse hirsuta; antherae 2-thecae, glabrae. *Ovarium* orbiculatum; stylus teres; stigma membranaceum et dilatatum.

Herba pusilla, acaulescens, circa 1—2 cm. alta; folia 0.5—1 cm. longa, linearia vel lanceolato-linearia, scabrida.

South West Africa: Kanovley, May 1934, *Dinter* 7224.

Alectra basutica Phillips nov. comb. = *Melasma basuticum* Phillips.